

IN THE CLAIMS:

Please amend claims 2-28 as follows.

1. (Previously Presented) A method, comprising:

establishing a radio channel candidate;

processing the radio channel candidate with potentially interfering signals and

calculating a carrier to interference ratio for a selected carrier frequency of the radio

channel candidate and the potentially interfering signals;

calculating at least one dominant interference ratio being the ratio of a signal level

of a strongest potentially interfering signal with respect to a sum of signal levels of other

potentially interfering signals; and

using a criteria based on the dominant interference ratio in a channel selection

process for selecting a channel for the connection to be established.
2. (Currently Amended) ~~A~~The method according to claim 14, wherein the radio

channel candidate and potentially interfering signals are processed using an interference

cancellation technique.
3. (Currently Amended) The ~~A~~-method according to claim 2, wherein the dominant

interference ratio is used to establish an indication as to an interference cancellation gain

provided by the interference cancellation technique, the interference cancellation gain

being used to establish a criteria for channel selection.

4. (Currently Amended) The A-method according to claim 3, wherein the interference cancellation gain is used to modify an estimate of the carrier to interference ratio before using the carrier to interference ratio as a basis for criteria in the channel selection process.

5. (Currently Amended) The A-method according to claim 1, wherein one of the criteria used in the channel selection process is a maximum value of a minimum difference between the calculated carrier to interference ratio and a target carrier to interference ratio.

6. (Currently Amended) The A-method according to claim 1, where one of the criteria used in the selection process is an average dominant interference ratio taken over a set of n connections which could be interfered with by the connection to be established.

7. (Currently Amended) The A-method according to claim 3, wherein the interference cancellation gain provided by the interference cancellation technique is established from the dominant interference ratio using a predefined function.

8. (Currently Amended) An apparatus, comprising:
an establishing unit configured to establish a radio channel candidate;

a first calculation unit configured to process the radio channel candidate with potentially interfering signals and to calculate a carrier to interference ratio based on a selected carrier frequency of the radio channel candidate and potentially interfering signals; and

a second calculation unit configured to calculate a dominant interference ratio being a ratio of a signal level of a strongest potentially interfering signal with respect to a sum of the signal levels of other potentially interfering signals; and

a selection unit configured to implement a selection process for selecting a channel for a connection to be established using criteria based on the dominant interference ratio.

9. (Currently Amended) The ~~An~~ apparatus according to claim 15, further comprising:

an interference cancellation unit configured to apply an interference cancellation technique to the radio channel candidate and potentially interfering signals.

10. (Currently Amended) The ~~An~~ apparatus according to claim 9, further comprising:

an interference cancellation gain unit configured to use the dominant interference ratio to establish an indication as to a gain provided by the interference cancellation technique, the gain being used to establish a criteria for channel selection.

11. (Currently Amended) The ~~An~~ apparatus according to claim 8, configured to operate as part of a base station controller.

12. (Currently Amended) A system, comprising:

a plurality of stations, at least some of which comprise[[:.]]

an establishing unit configured to establish a radio channel candidate,

a first calculation unit configured to process the radio channel candidate with potentially interfering signals and to calculate a carrier to interference ratio based on a selected carrier frequency of the radio channel candidate and potentially interfering signals, and;

a second calculation unit configured to calculate a dominant interference ratio being a ratio of a signal level of a strongest potentially interfering signal with respect to a sum of the signal levels of other potentially interfering signals; and

a selection unit configured to implement a selection process for selecting a channel for a connection to be established using criteria based on the dominant interference ratio.

13. (Currently Amended) The A-system according to claim 12, comprising a cellular communication network.

14. (Currently Amended) The A-method according to claim 1, wherein said using criteria based on the dominant interference ratio additionally uses the carrier to interference ratio.

15. (Currently Amended) ~~The An~~-apparatus according to claim 8, wherein said implementing unit uses criteria based the carrier to interference ratio.

16. (Currently Amended) An apparatus, comprising:

means for establishing a radio channel candidate;

means for processing the radio channel candidate with potentially interfering signals and calculating a carrier to interference ratio based on a selected carrier frequency of the radio channel candidate and potentially interfering signals; and

means for calculating a dominant interference ratio being a ratio of a signal level of a strongest potentially interfering signal with respect to a sum of the signal levels of other potentially interfering signals; and

means for implementing a selection process for selecting a channel for a connection to be established using criteria based on the dominant interference ratio.

17. (Currently Amended) ~~The An~~-apparatus according to claim 16 wherein said means for implementing uses criteria based the carrier to interference ratio.

18. (Currently Amended) ~~The An~~-apparatus according to claim 17, further comprising:

means for applying an interference cancellation technique to the radio channel candidate and potentially interfering signals.

19. (Currently Amended) ~~The~~ An apparatus according to claim 18, further comprising:
means for using the dominant interference ratio to establish an indication as to a gain provided by the interference cancellation technique, the gain being used to establish a criteria for channel selection.
20. (Currently Amended) ~~An~~ The apparatus according to claim 16 for operating as part of a base station controller.
21. (Currently Amended) A computer program embodied on a computer-readable medium, the computer program having computer-executable components configured to control a processor to perform a method operations comprising:
establishing a radio channel candidate;
processing the radio channel candidate with potentially interfering signals and calculating a carrier to interference ratio (~~CIR~~) for a selected carrier frequency of the radio channel candidate and the potentially interfering signals;
calculating at least one dominant interference ratio (~~DIR~~) being the ratio of a signal level of a strongest potentially interfering signal with respect to a sum of signal levels of other potentially interfering signals; and
using a criteria based on the dominant interference ratio in a channel selection process for selecting a channel for the connection to be established.

22. (Currently Amended) ~~A~~ The computer program ~~-readable medium~~ according to claim 21, wherein said using criteria based on the dominant interference ratio additionally uses the carrier to interference ratio.

23. (Currently Amended) ~~The A~~ computer program ~~-readable medium~~ according to claim 22, wherein the radio channel candidate and potentially interfering signals are processed using an interference cancellation technique.

24. (Currently Amended) ~~The A~~ computer program ~~-readable medium~~ according to claim 23, wherein the dominant interference ratio is used to establish an indication as to an interference cancellation gain provided by the interference cancellation technique, the interference cancellation gain being used to establish a criteria for channel selection.

25. (Currently Amended) ~~The A~~ computer program ~~-readable medium~~ according to claim 24, wherein the interference cancellation gain is used to modify an estimate of the carrier to interference ratio before using the carrier to interference ratio as a basis for criteria in the channel selection process.

26. (Currently Amended) ~~The A~~ computer program ~~-readable medium~~ according to claim 21, wherein one of the criteria used in the channel selection process is a maximum

value of a minimum difference between the calculated carrier to interference ratio and a target carrier to interference ratio.

27. (Currently Amended) The A-computer program ~~-readable medium-~~ according to claim 21, where one of the criteria used in the selection process is an average dominant interference ratio taken over a set of n connections which could be interfered with by the connection to be established.

28. (Currently Amended) The A-computer program ~~-readable medium-~~ according to claim 24, wherein the interference cancellation gain provided by the interference cancellation technique is established from the dominant interference ratio using a predefined function.